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Hepatitis B, acute

Overview^(1,2)

For a complete description of hepatitis B, refer to the following texts:

- Control of Communicable Diseases Manual (CCDM).
- Red Book, Report of the Committee on Infectious Diseases.

Case Definition⁽³⁾

Clinical Definition

Hepatitis B:

An acute illness with:

- a) Discrete onset of symptoms
- b) Jaundice or elevated serum aminotransferase levels

Perinatal Hepatitis B:

Perinatal hepatitis B in the newborn may range from asymptomatic to fulminant hepatitis.

Laboratory criteria for diagnosis

Hepatitis B:

1. IgM antibody to hepatitis B core antigen (anti-HBc IgM) positive (if done) or hepatitis B surface antigen (HBsAg) positive
2. IgM anti-HAV negative (if done)

Hepatitis B Perinatal:

Hepatitis B surface antigen (HbsAg) positive

Case classification

Hepatitis B:

Confirmed: a case that meets the clinical case definition and is laboratory confirmed.

Case Definitions for Probable, Suspect, Old and Carrier Cases:⁽⁵⁾

Clinical description:

Cases in these categories may or may not have an acute onset of illness or symptoms and may or may not have elevated liver enzyme test results. Additional information is required to correctly classify the case.

Probable: A case that is positive for Hepatitis B core IgM Antibody (Anti-HBc IgM) but symptom history is currently unavailable and the case has not been reported previously. This case should remain open until information is available to reclassify the case.⁽⁵⁾

Suspect: A case that is positive for Hepatitis B Surface Antigen (HBsAg) and does not have symptoms and is either negative for Hepatitis B Core IgM (Anti-HBc IgM) or Anti-HBc IgM results are not available. ⁽⁵⁾

Old: A case that is negative for Hepatitis B Surface Antigen (HBsAg) and does not have symptoms and is positive for Hepatitis B Core Antibody Total (Anti-HBc) and is negative for Hepatitis B Core IgM (Anti-HBc IgM) or Anti-HBc IgM results are not available. ⁽⁵⁾

Carrier: A case that has been positive for Hepatitis B Surface Antigen (HBsAg) for more than six months OR a case that is positive for Hepatitis B Surface Antigen (HBsAg) and is positive for Hepatitis B Core Antibody Total (Anti-HBc) and is negative for Hepatitis B Core IgM (Anti-HBc IgM). ⁽⁵⁾

Overview of Case Definitions for Hepatitis B

Case Definition	Discrete onset of symptoms	Jaundice or elevated liver functions	HBsAg	Anti-HBs	Anti-HBc	Anti-HBc IgM	HAVIgM
Confirmed	Yes	Yes	+	Unk	Unk	+ (If done)	- (If done)
Probable	Unk	Unk	+	Unk	Unk	+	Unk
Suspect	No	No	+	Unk	Unk	- (If done)	Unk
Old	No	No	-	Unk	+	-	Unk
Carrier*	No	No	+	Unk	+	-	Unk

* A case that has been positive for HBsAg for more than six months also fits within the case definition of carrier.

Perinatal Hepatitis B:

Confirmed: HBsAg positivity in any infant aged >1-24 months who was born in the United States or in U.S territories to an HBsAg-positive mother.

Comment:

1. Infants born to HBsAg-positive mothers should receive hepatitis B immune globulin (HBIG) and the first dose of hepatitis B vaccine within 24 hours of birth, followed by the second and third doses of vaccine at 1 and 6 months of age, respectively. Post-vaccination testing for HBsAg and the antibody to HBsAg (Anti-HBsAg) is recommended from 3 to 6 months following completion of the vaccine series. If HBIG and the initial dose of vaccine are delayed for >1 month after birth, testing for HBsAg may determine if the infant is already infected. If vaccine is not available at birth, the first dose should be given prior to discharge, but not later than 7 days after birth. ⁽⁴⁾

Information Needed for Investigation

Verify the diagnosis. What laboratory tests were conducted? What were the results? What are the case's clinical symptoms? Is this an acute case or is this a hepatitis B carrier? Do a search in MOHSIS to reveal any previous history of hepatitis B. What is the individual's vaccination status?

Contact the District Immunization Representative immediately if the case is prenatal or perinatal regardless of case classification.

Establish the extent of illness. Determine if household or other close contacts are, or have been ill, by contacting the health care provider, patient or family member.

Contact the District Communicable Disease Coordinator if cases are in high-risk settings or jobs such as health care.

Case/Contact Follow-Up And Control Measures

Determine the source of infection:

- Is this a perinatal exposure?
- Did this case have a percutaneous or permucosal exposure?
- Did this case have unprotected sex with a hepatitis B positive partner?
- Have there been other cases linked by time, place or person?
- Did this person have household exposure to another hepatitis B case or carrier?

Determine the risk of infection to others and to contact those who may be at risk:

- Is the case pregnant?
- Does this case have unprotected sex with multiple partners?
- Does this case participate in the use of intravenous drugs or any activity that may involve the sharing or re-use of needles such as tattooing/body piercing?

Control Measures

See the Viral Hepatitis B and Delta Hepatitis sections of the Control of Communicable Diseases Manual (CCDM), "Control of Patient, Contacts and the Immediate Environment".

See the Hepatitis B and Hepatitis D sections of the Red Book.

Contact the District Immunization Representative to arrange for vaccination of household contacts and other high-risk individuals. Further information on who is eligible for these vaccinations can be found in the Section of Vaccine Preventable and Tuberculosis Disease Elimination (SVPTDE) Immunization Guidelines Manual.

Laboratory Procedures

1. For confirmation of a suspected case of hepatitis B, use a Missouri State Public Health Laboratory (SPHL) virus serology kit.
2. The SPHL does NOT perform Delta hepatitis testing. If Delta hepatitis is suspected, recommend that the physician submit the specimen to a commercial laboratory for testing. If a commercial laboratory is not an option, contact the District Communicable Disease Coordinator and he/she will coordinate sending the specimen to CDC.
3. Draw one red-top tube of blood, using standard precautions.
4. Either send serum OR whole blood:
 - To send serum:
 - Allow blood to stand for 30 minutes to 1 hour
 - Centrifuge at 2000 rpm for 5 minutes
 - Pour clear serum into another red top tube*
 - Discard clot tube safely

NOTE: Hot or cold weather conditions can hemolyze whole blood, making it unsuitable for testing. Specimens should be sent as serum under these conditions.

5. Wipe off outside of tube with alcohol.
6. Label tube carefully; include patient's name and date sample obtained. Samples without this information on both the tube and request form *will not be tested and will be discarded*.
7. Fill out lab form "Hepatitis Test Request", as completely as you can. If you are screening contacts mark the box labeled "Hepatitis B-EIA for (HBsAg)".
8. Immediately mail blood or serum; include form.
9. If the test is requested by a local public health agency, state the name of the LPHA on the lab form. If submitted by a private physician, he/she will be charged.

*The state lab cannot provide the extra red top tubes.

FOR ADDITIONAL INFORMATION, CONTACT THE DISTRICT
COMMUNICABLE DISEASE COORDINATOR

Interpretation of Specific Serological Tests for Hepatitis B:Antigens: Parts of the virus itself.

<u>Test</u>	<u>Interpretation</u>
HBsAg Hepatitis B Surface Antigen	<u>Infectious</u> – Surface antigen appears in the serum as early as 1-2 and as late as 11-12 weeks after exposure to HBV. It is usually the first viral marker to appear in the blood after HBV infection. In self-limited infections (not a carrier), HBsAg remains detectable in the blood for 1-6 weeks although it may persist for as long as 20 weeks. 95% of patients are HBsAg positive at the onset of symptoms and jaundice. HBsAg generally disappears with recovery. In some patients, HBsAg clears rapidly and may be absent at the time the patient is tested. Between 5-10% of patients infected with HBV do not clear HBsAg and become carriers. A patient with HBsAg that persists beyond 6 months after acute infection or a previously positive HBsAg test is considered a carrier. HBsAg persists indefinitely in carriers. Look at antibody tests and any previous viral hepatitis serology tests to determine whether the case has been recently infected or is a carrier.
HBeAg Hepatitis B “Early” Antigen	<u>Highly Infectious</u> - HBeAg is another regular and early marker of HBV infection. HBeAg appears simultaneously or within a few days of the appearance of HBsAg in most primary infections. Its titer peaks and then declines in parallel with HBsAg. HBeAg usually disappears just before the disappearance of HBsAg in self-limited infections. Patients who remain HBeAg positive for 10 weeks or longer appear likely to become carriers. Look at antibody tests and any previous viral hepatitis serology tests to determine whether the case has been recently infected or is a carrier.

Antibodies: Proteins developed by the body's immune system in response to antigens.

<u>Test</u>	<u>Interpretation</u>
Anti-HBc Hepatitis B Core Antibody Total	<u>Indeterminate infectiousness</u> - Anti-HBc titers usually rise during the period of HBsAg positivity, level off, and slowly fall after HBsAg becomes undetectable. Anti-HBc can be detected for 5 to 6 years after acute infection in both carriers and non-carriers. Anti-HBc is the combination of IgM and IgG class antibodies (Anti-HBc IgM and Anti-HBc IgG). Look at Anti-HBc IgM to determine recent infection. Look at antigen tests to determine whether the case is currently infectious.
Anti-HBc IgM or HBcIgM Hepatitis B Core IgM Antibody	<u>Indeterminate infectiousness, Recent infection</u> -Anti-HBc IgM is one class of Hepatitis B Core antibodies. Anti-HBc has been found in almost all patients with acute hepatitis B. Anti-HBc IgM rapidly decreases in titer after infection and is no longer detectable within 6-24 months. A positive Anti-HBc IgM serology is an indication of recent infection. A chronic hepatitis B carrier should test negative for Anti-HBc IgM. Look at antigen tests to determine whether the case is currently infectious.
Anti-HBc IgG or HBcIgG Hepatitis B Core IgG Antibody	<u>Indeterminate infectiousness</u> -The individual was infected at some time in the past. This test alone does not give any indication of when in the past. Look at Anti-HBc IgM to determine recent infection. Look at antigen tests to determine whether the case is currently infectious.
Anti-HBe Hepatitis B "Early" Antibody	<u>Probably less infectious</u> - Anti-HBe appears in most patients at the time HBeAg becomes undetectable or shortly thereafter. Anti-HBe persists for 1 to 2 years after resolution of HBV infection. Look at Anti-HBc IgM to determine recent infection. Look at antigen tests to determine whether the case is currently infectious.
Anti-HBs or HBsAb Antibody to Hepatitis B Surface Antigen	<u>Immune</u> - Anti-HBs develops after a resolved infection and is a marker of long-term immunity. This is the only positive test for an uninfected, vaccinated individual. It may take several months for this antibody to appear after infection or vaccination and in some cases does not appear at all. However, this antibody will likely persist for several years when it does appear.

Interpretation of Several Combinations of Hepatitis B Serologic Tests

<u>Tests for HBV</u>				<u>Interpretation</u>
HBsAg	Anti-HBs	Anti-HBc	Anti-HBc IgM	
+	—	—	—	Very recent, acute HBV infection (infectious)
+	—	+	+	Acute HBV infection (infectious)
+	—	+	—	Chronic HBV infection with HBsAg carriage (infectious)
—	—	+	+	Acute HBV infection, anti-HBs has not yet appeared (may be infectious)
—	+	+	+	Resolving acute HBV infection (may be infectious)
—	+	+	—	HBV infection in the remote past (Immune)
—	—	+	—	HBV infection in the remote past (Immune)
—	—	—	Not Tested	No hepatitis B infection, if liver abnormalities exist they are due to another virus, toxin or condition
—	+	—	Not Tested	Post hepatitis B vaccine or post HBIG

Reporting Requirements

Hepatitis B is a Category II disease and shall be reported to the local health authority or to the Missouri Department of Health and Senior Services (DHSS) within 3 days of first knowledge or suspicion.

1. For all cases, complete a Disease Case Report form (CD-1).
2. For confirmed, probable, suspect and perinatal cases, complete the “Viral Hepatitis Case Report” form (CDC 53.1), front and back. Detach and complete the worksheet on the back (this is necessary to prevent the carbons from marking on the front of the form). Staple the completed worksheet to the form.
3. If this is a prenatal or perinatal case, contact the District Immunization Representative. Fill out the "Prenatal Hepatitis B Case Report" form (IMMP-29) and the "Perinatal Hepatitis B Case Report" form (IMMP-29A). These forms, policy, and guidelines can be found in the Section of Vaccine Preventable and Tuberculosis Disease Elimination (SVPTDE) Immunization Guidelines Manual.
4. If prophylaxis is provided using hepatitis B vaccine and/or HBIG supplied by DHSS, SVPTDE, complete forms and follow protocol in the Immunization Guidelines Manual.
5. Entry of the complete CD-1 into the MOHSIS database negates the need for the paper CD-1 to be forwarded to the District Health Office.
6. Send the completed secondary investigation form(s) to the District Health Office.
7. All outbreaks or “suspected” outbreaks must be reported as soon as possible (by phone, fax or e-mail) to the District Communicable Disease Coordinator. This can be accomplished by completing the Missouri Outbreak Surveillance Report (CD-51).
8. Within 90 days from the conclusion of an outbreak, submit the final outbreak report to the District Communicable Disease Coordinator.

References

1. Chin, James, ed. "Hepatitis B and Delta Hepatitis." Control of Communicable Diseases Manual, 17th Ed. Washington, D.C.: American Public Health Association., 2000: 243-251, 253-255.
2. American Academy of Pediatrics. "Hepatitis B and Hepatitis D." In: Pickering, LK, ed. 2000 Red Book: Report of the Committee on Infectious Diseases. 25th ed. Elk Grove Village, IL. 2000: 289-302, 306-308.
3. Centers for Disease Control and Prevention. Case Definitions for Infectious Conditions Under Public Health Surveillance. MMWR 1997;46 (No.RR-10): 18-19.
4. Atkinson, William, et al. Eds. Epidemiology and Prevention of Vaccine-Preventable Diseases; 7th Ed.: Atlanta: National Immunization Program, Centers for Disease control and Prevention, 2002: 223-245.
5. Missouri Department of Health and Senior Services - Section of Communicable Disease Control and Veterinary Public Health surveillance case definition.
6. Missouri Department of Health and Senior Services – Section of Vaccine-Preventable and Tuberculosis Disease Elimination Immunization Guidelines, Section 345, Subsection 345.07.
7. Mandell, GL, Bennett, JE, and Dolin, R, ed. *Mandell Douglas and Bennett's Principles and Practice of Infectious Diseases*, 5th ed. New York: Churchill Livingstone, 2000.

Other Sources of Information

Evans, Alfred S. and Richard A. Kaslow, Eds. Viral Infections of Humans Epidemiology and Control; 4th ed. Eds.. New York: Plenum, 1997: 375-387.

Delta Hepatitis

Overview^(1,2)

For a complete description of Delta hepatitis, refer to the Delta hepatitis section in the following texts:

- Control of Communicable Diseases Manual (CCDM).
- Red Book, Report of the Committee on Infectious Diseases.

Case Definition⁽³⁾

Clinical case definition

An acute illness with:

- a) Discrete onset of symptoms
- b) Jaundice or elevated serum aminotransferase levels

Laboratory criteria for diagnosis

Delta hepatitis: HBsAg or IgM anti-HBc positive and antibody to hepatitis delta virus positive

Case classification:

Confirmed: a case that meets the clinical case definition and is laboratory confirmed.

*Delta hepatitis is not a nationally notifiable disease.

Information Needed for Investigation

Verify the diagnosis. What laboratory tests were conducted? What were the results? What are the case's clinical symptoms? Is this person documented as an acute case of hepatitis B or hepatitis B carrier? (Delta hepatitis is only present in individuals with hepatitis B).

Establish the extent of illness. Determine if household or other close contacts are, or have been ill, by contacting the health care provider, patient or family member.

Contact the District Communicable Disease Coordinator. Due to the low prevalence of hepatitis D, one occurrence of disease is significant.

Case/Contact Follow-Up And Control Measures

Determine the source of infection:

- Is this a perinatal exposure?
- Did this case have a percutaneous or permucosal exposure?
- Did this case have unprotected sex with a delta hepatitis positive partner?
- Have there been other cases linked by time, place or person?
- Did this person have household exposure to another delta hepatitis case?

Determine the risk of infection to others and to contact those who may be at risk:

- Does this case have unprotected sex with multiple partners?
- Does this case participate in intravenous use of illegal drugs?

Control Measures

See the Delta Hepatitis section of the Control of Communicable Diseases Manual (CCDM), “Control of patient, contacts and the immediate environment”.

See the Hepatitis D section of the Red Book.

Laboratory Procedures

The SPHL does NOT perform Delta hepatitis testing. If Delta hepatitis is suspected, recommend that the physician submit the specimen to a commercial laboratory for testing. If submitting the specimen to a commercial laboratory is not an option, contact the District Communicable Disease Coordinator and he/she will coordinate sending the specimen to CDC.

FOR ADDITIONAL INFORMATION, CONTACT YOUR DISTRICT COMMUNICABLE DISEASE COORDINATOR.

Reporting Requirements

Delta Hepatitis is a Category II disease and shall be reported to the local health authority or to the Missouri Department of Health and Senior Services (DHSS) within 3 days of first knowledge or suspicion.

1. For all cases complete a Disease Case Report form (CD-1) and the “Viral Hepatitis Case Report” form (CDC 53.1), front and back. Detach and complete the worksheet on the back (this is necessary to prevent the carbons from marking on the front of the form). Staple the completed worksheet to the form.
2. Entry of the complete CD-1 into the MOHSIS database negates the need for the paper CD-1 to be forwarded to the District Health Office.
3. Send the completed secondary investigation form to the District Health Office.
4. All outbreaks or “suspected” outbreaks must be reported as soon as possible (by phone, fax or e-mail) to the District Communicable Disease Coordinator. This can be accomplished by completing the Missouri Outbreak Surveillance Report (CD-51).
5. Within 90 days from the conclusion of an outbreak, submit the final outbreak report to the District Communicable Disease Coordinator.

References

1. Chin, James, ed. “Delta Hepatitis.” Control of Communicable Diseases Manual, 17th ed. Washington, D.C.: American Public Health Association, 2000: 253-255.
2. American Academy of Pediatrics. “Hepatitis D.” In: Pickering, LK, ed. 2000 Red Book: Report of the Committee on Infectious Diseases, 25th ed. Elk Grove Village, IL. 2000: 306-308.
3. Centers for Disease Control and Prevention. Case Definitions for Infectious Conditions Under Public Health Surveillance. MMWR 1997;46 (No.RR-10).
4. Missouri Department of Health and Senior Services Section of Communicable Disease Control and Veterinary Public Health surveillance case definition.

Other Sources of Information

1. Mandell, GL, Bennett, JE, and Dolin, R, ed. *Mandell Douglas and Bennett’s Principles and Practice of Infectious Diseases*, 5th ed. New York: Churchill Livingstone, 2000.
2. Evans, Alfred S. and Richard A. Kaslow, Eds. Viral Infections of Humans Epidemiology and Control; 4th ed. Eds. New York: Plenum, 1997: 375-387.

Hepatitis B

Fact Sheet

What is hepatitis B?

Hepatitis B (HBV) formerly known, as serum hepatitis is a liver disease caused by the hepatitis B virus. An estimated 140,000 Americans are infected each year. Approximately 1-1.25 million people are chronically infected and are considered to be carriers of the virus.

Who gets hepatitis B?

Anyone can get hepatitis B, but those at greatest risk include:

- Babies born to mothers who are infectious with the hepatitis B virus (including carriers)
- Injection drug users (or persons who share needles);
- Persons in occupations where there is contact with infected blood and other infectious body fluids which includes saliva - (persons who work as health care workers, first responders, etc.);
- Sexually active homosexual and bisexual men;
- Anyone with multiple sex partners;
- Men and women who have a recent diagnosis of another sexually transmitted disease
- Hemodialysis patients;
- Persons who receive unscreened blood products;
- Certain household contacts of an infected person;
- Household contacts and sexual partners of hepatitis B carriers
- Inmates of long-term correctional facilities
- Persons from countries where hepatitis B is widespread (certain areas of Asia and Africa);
- Persons in the United States who are Alaskan Natives or Pacific Islanders.
- Persons receiving tattoos/body piercings.

How is the virus spread?

Hepatitis B virus can be found in the blood of infected persons; it is also present in lesser amounts in semen, vaginal secretions, amniotic fluid, body fluids containing blood, unfixed tissues and organs, and saliva. Hepatitis B virus is spread through sexual contact (homosexual and heterosexual), needle sharing, needle stick injury, mucous membrane exposure, and direct contact with infected body fluids. Hepatitis B virus is not spread by casual contact.

What are the symptoms of hepatitis B?

Many persons with hepatitis B infection have no symptoms at all, or they may be mild and flu-like (i.e.: loss of appetite, nausea, vomiting, diarrhea, fatigue). Some patients may notice darkened urine (iced-tea colored), light clay colored stools or yellowing of the skin and eyes (jaundice). A few persons will experience a more severe disease syndrome and may die of overwhelming liver failure.

How soon do symptoms appear?

The symptoms, if they appear, may occur as early as 45 days to as long as 180 days following exposure, the average is 60-90 days. The variation in time for onset of symptoms is related in part to the amount of virus transmitted at the time of exposure.

How is hepatitis B diagnosed?

Since there are several types of viral hepatitis, a blood test is needed to determine which type of hepatitis is present.

For how long is a person able to spread the virus?

The virus can be present in blood and other body fluids several weeks before symptoms appear and generally for several months afterward. About 1 in 10 adults and 3 of 10 children with hepatitis B will go on to become ongoing carriers of the virus for the rest of their lives even when they do not have symptoms. As long as the virus is present, it can be spread to others. Persons with hepatitis B infection should not donate blood, organs or tissues.

What is the treatment for hepatitis B?

There are no special medicines to treat a person with acute hepatitis B disease. Generally, rest and supportive treatment is all that is needed. Carriers of hepatitis B infection may benefit from treatment with a medication called interferon.

What precautions should hepatitis B carriers take?

Hepatitis B carriers should practice good hygiene so that close contacts are not directly exposed to their blood or other body fluids. Carriers must not share razors, toothbrushes or any other object that may become contaminated with blood. In addition, household members, particularly sexual partners, should be immunized with hepatitis B vaccine. Carriers should practice "safe sex"; use barrier precautions, if their partners are not immunized. It is important for carriers to inform their dentists and other health care providers of their carrier state.

Can hepatitis B be prevented?

Yes, a vaccine to prevent hepatitis B has been available since 1982. It is safe, effective and recommended for all newborns, 11-12 year olds and for any person at risk for getting infected (see page 1, "Who gets hepatitis B?"). A special hepatitis B immune globulin (HBIG) is also available for people who are not vaccinated and are exposed to the virus. If you are exposed to hepatitis B, consult a doctor or your local health department immediately.

**Missouri Department of Health and Senior Services
Section of Communicable Disease Control and Veterinary Public Health
Phone: (800) 392-0272**

VIRAL HEPATITIS CASE RECORD
FOR REPORTING OF PATIENTS WITH SYMPTOMATIC ACUTE VIRAL HEPATITIS
(SEE CASE DEFINITION ON REVERSE)

446800

STATE GEOGRAPHIC CODE				
(1)	(2)	(3)	(4)	(5)
STATE CASE NO.				
(6)	(7)	(8)	(9)	(10)

DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
Centers for Disease Control and Prevention
Hepatitis Branch, (A33)
Atlanta, Georgia 30333



CDC CASE NO.			
(11)	(12)	(13)	(14)

PATIENT'S LAST NAME (please print clearly) (12-26)	FIRST AND MIDDLE NAME (or initials)	OCCUPATION
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STREET ADDRESS	TOWN OR CITY	STATE (Zip Code)	COUNTY (27-36)	COUNTY FIPS CODE (37-40)
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AGE (yrs) (41-42) 00 = < 1yr 99 = Unk	DATE OF BIRTH (43-48) Mo Day Yr	SEX (49) 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 9 <input type="checkbox"/> Unk	RACE (50) 1 <input type="checkbox"/> American Indian or Alaskan Native 3 <input type="checkbox"/> Black 5 <input type="checkbox"/> White 9 <input type="checkbox"/> Unk	ETHNICITY (51) 1 <input type="checkbox"/> Hispanic 2 <input type="checkbox"/> Non-Hispanic 9 <input type="checkbox"/> Unk
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Reporting physician's diagnosis (52-53)	1 <input type="checkbox"/> Hepatitis A	2 <input type="checkbox"/> Hepatitis B	3 <input type="checkbox"/> Non-A, Non-B Hepatitis	4 <input type="checkbox"/> Hepatitis D (Delta)	5 <input type="checkbox"/> Hepatitis Unspecified
DO NOT REPORT CASES OF CHRONIC HEPATITIS OR CHRONIC CARRIERS!!					

CLINICAL DATA			LABORATORY RESULTS			
	Mo	Day	Yr	Pos	Neg	Not Tested/Unk
Date of first symptom (54-59)				1 <input type="checkbox"/>	2 <input type="checkbox"/>	9 <input type="checkbox"/>
Date of diagnosis (60-65)				1 <input type="checkbox"/>	2 <input type="checkbox"/>	9 <input type="checkbox"/>
Was the patient jaundiced? (66)	1 <input type="checkbox"/> Yes	2 <input type="checkbox"/> No		1 <input type="checkbox"/>	2 <input type="checkbox"/>	9 <input type="checkbox"/>
Was the patient hospitalized for hepatitis? (67)	1 <input type="checkbox"/> Yes	2 <input type="checkbox"/> No		1 <input type="checkbox"/>	2 <input type="checkbox"/>	9 <input type="checkbox"/>
Did the patient die from hepatitis? (68)	1 <input type="checkbox"/> Yes	2 <input type="checkbox"/> No		1 <input type="checkbox"/>	2 <input type="checkbox"/>	9 <input type="checkbox"/>
				IgM Hepatitis A antibody (IgM anti-HAV) (69)		
				Hepatitis B surface antigen (HBsAg) (70)		
				IgM Hepatitis B core antibody (IgM anti-HBc) (71)		
				Antibody to Delta (anti-HDV) (72)		

For purposes of National Surveillance, ASK ALL OF THE FOLLOWING QUESTIONS FOR EVERY CASE OF HEPATITIS. These questions may help determine where the patient acquired his/her infection. Please refer to the work sheet on the back of the last page for additional questions.

	Yes	No	Unk
During the 2-6 weeks prior to illness			
1. was the patient a child or employee in a nursery, day care center, or preschool? (73)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	9 <input type="checkbox"/>
2. was the patient a household contact of a child or employee in a nursery, day care center, or preschool? (74)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	9 <input type="checkbox"/>
3. was the patient a contact of a confirmed or suspected hepatitis A case? (75)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	9 <input type="checkbox"/>
If yes, type of contact: (76) 1 <input type="checkbox"/> Sexual 2 <input type="checkbox"/> Household (non-sexual) 3 <input type="checkbox"/> Other			
4. was the patient employed as a food handler? (77)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	9 <input type="checkbox"/>
5. did the patient eat raw shellfish? (78)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	9 <input type="checkbox"/>
6. was the patient suspected as being part of a common-source foodborne or waterborne outbreak? (79)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	9 <input type="checkbox"/>
7. did the patient travel outside of the U.S. or Canada? (80)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	9 <input type="checkbox"/>
If yes, where: (81) 1 <input type="checkbox"/> So./Central America (including Mexico) 2 <input type="checkbox"/> Africa 3 <input type="checkbox"/> Caribbean 4 <input type="checkbox"/> Middle East 5 <input type="checkbox"/> Asia/So. Pacific 6 <input type="checkbox"/> Australia/New Zealand 7 <input type="checkbox"/> Other			
Duration of stay: (82) 1 <input type="checkbox"/> 1-3 Days 2 <input type="checkbox"/> 4-7 Days 3 <input type="checkbox"/> More than 7 Days			
During the 6 weeks-6 months prior to illness			
8. was the patient a contact of a confirmed or suspected acute or chronic hepatitis B or non-A, non-B case? (83)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	9 <input type="checkbox"/>
If yes, type of contact: (84) 1 <input type="checkbox"/> Sexual 2 <input type="checkbox"/> Household (non-sexual) 3 <input type="checkbox"/> Other			
9. was the patient employed in a medical, dental or other field involving contact with human blood? (85)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	9 <input type="checkbox"/>
If yes, degree of blood contact: (86) 1 <input type="checkbox"/> Frequent (several times weekly) 2 <input type="checkbox"/> Infrequent			
10. did the patient receive blood or blood products (transfusion)? (87)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	9 <input type="checkbox"/>
If yes, specify date(s) received: (88-93) From ___/___/___ to ___/___/___ (94-99)			
11. was the patient associated with a dialysis or kidney transplant unit? (100)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	9 <input type="checkbox"/>
If yes, (101) 1 <input type="checkbox"/> Patient 2 <input type="checkbox"/> Employee 3 <input type="checkbox"/> Contact of patient or employee			
12. did the patient use needles for injection of street drugs? (102)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	9 <input type="checkbox"/>
13. what was the patient's sexual preference? (103) 1 <input type="checkbox"/> Heterosexual 2 <input type="checkbox"/> Homosexual 3 <input type="checkbox"/> Bisexual 9 <input type="checkbox"/> Unk			
14. how many different sexual partners did the patient have? (104) 1 <input type="checkbox"/> None 2 <input type="checkbox"/> One 3 <input type="checkbox"/> 2-5 4 <input type="checkbox"/> More than 5 9 <input type="checkbox"/> Unk			
15. did the patient have			
dental work or oral surgery? (105) 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No 9 <input type="checkbox"/> Unk	tattooing? (108) 1 <input type="checkbox"/>	2 <input type="checkbox"/>	9 <input type="checkbox"/>
other surgery? (106) 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No 9 <input type="checkbox"/> Unk	an accidental stick or puncture with a needle		
acupuncture? (107) 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No 9 <input type="checkbox"/> Unk	or other object contaminated with blood? (109) 1 <input type="checkbox"/>	2 <input type="checkbox"/>	9 <input type="checkbox"/>
Has this patient ever received the three dose series of Hepatitis B vaccine? (110) 1 <input type="checkbox"/>			
If yes, what year? (111-112) ___ AND was the patient tested for antibody within 1-6 months after the last dose? (113) 1 <input type="checkbox"/>			
If yes, was the antibody test: (114) 1 <input type="checkbox"/> Pos 2 <input type="checkbox"/> Neg 3 <input type="checkbox"/> Unknown			

Comments:	Investigator's Name
	Date

WORK SHEET

CASE DEFINITION FOR REPORTING OF ACUTE VIRAL HEPATITIS

Illness with: 1) discrete onset of symptoms and
2) jaundice or elevated serum aminotransferase levels.

Hepatitis A: IgM anti-HAV positive.

Hepatitis B: IgM anti-HBc positive if done or HBsAg positive and IgM anti-HAV negative if done

Non-A, Non-B Hepatitis: 1) IgM anti-HAV negative, and
2) IgM anti-HBc negative if done or HBsAg negative, and
3) serum aminotransferase levels greater than 2 1/2 times the upper limit of normal

Delta Hepatitis: 1) HBsAg or IgM anti-HBc positive and
2) Anti-HDV positive.

FOR USE BY LOCAL HEALTH DEPARTMENTS TO DETERMINE THE PATIENT'S MOST PROBABLE SOURCE OF INFECTION

Patient's name _____ Home phone _____ Employed by _____ Work phone _____
Reporting physician's name, address, and phone # _____

If patient was hospitalized for hepatitis, give name of hospital _____
Results of liver function tests: SGOT (AST) _____ SGPT (ALT) _____ Bilirubin _____

FURTHER INFORMATION FOR ADMITTED RISK FACTORS AND SOURCES LISTED ON FRONT PAGE

IF APPLICABLE:

1. Name, address, and phone # of child care center _____
2. Name and address of school, grade, classroom attended _____
3. Name, address, and phone # of restaurant where food handler worked (HEPATITIS A ONLY) _____
4. Food history of patient for the 2-6 wks prior to onset: (HEPATITIS A ONLY)
 - a. name and location of restaurants _____
 - b. name and location of food stores _____
 - c. name and location of bakery _____
 - d. group meals attended (e.g., reception, church, meeting, etc.) _____
 - e. location raw shellfish purchased _____
5. Name, address, and phone # of known hepatitis A or hepatitis B contact _____ Relationship _____

6. CONTACTS REQUIRING PROPHYLAXIS FOR HEPATITIS A OR HEPATITIS B

Name	Age	Relationship to case	IG	HBIG	Vaccine

7. If transfused, NOTIFY BLOOD CENTER! Name of blood center _____
 - a. number of units of whole blood, packed RBC or frozen RBC received _____
 - b. specify type of blood product (e.g., albumin, fibrinogen, factor VIII, etc.) _____
8. IF DONOR, name, address, and phone # of donor or plasmapheresis center _____ Date _____
9. Name, address, and phone # of dialysis center _____
10. Name, address, and phone # of dentist or oral surgeon _____
11. If other surgery performed, name, address, and phone # of location _____
12. Name, address, and phone # of acupuncturist or tattoo parlor _____
13. Is patient currently pregnant? _____ If yes, give obstetrician's name, address and phone # _____
 - a. estimated date and location of delivery _____

Comments: _____

Investigator's Name and Title _____

Date of Interview _____

Work sheet